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INC., MATROX ELECTRONIC SYSTEMS,
8 LTD., MATROX GRAPHICS INC., MATROX
INTERNATIONAL CORP., and MATROX
9 TECH, INC.

10 UNITED STATES DISTRICT COURT
11 NORTHERN DISTRICT OF CALIFORNIA
12 SAN FRANCISCO DIVISION

13 RICOH COMPANY, LTD.,

14 Plaintiff,

15 vs.

16 AEROFLEX INCORPORATED, AMI
SEMICONDUCTOR, INC., MATROX
17 ELECTRONIC SYSTEMS LTD., MATROX
GRAPHICS INC., MATROX
18 INTERNATIONAL CORP., MATROX TECH,
INC., AND AEROFLEX COLORADO
19 SPRINGS, INC.,

20 Defendants.
21

Case No. C03-4669 MJJ (EMC)

**REPLY MEMORANDUM IN SUPPORT OF
DEFENDANTS' MOTION FOR SUMMARY
JUDGMENT REGARDING THE SCOPE OF
PATENT DAMAGES FOR ALLEGED
INFRINGEMENT OF U.S. PATENT NO.
4,922,432**

CONFIDENTIAL – FILED UNDER SEAL

Date: September 26, 2006
Time: 9:30 a.m.
Courtroom: 11, 19th Floor
Judge: Martin J. Jenkins

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1 **I. INTRODUCTION**

2 Ricoh's opposition demonstrates why summary judgment should be granted regarding the
 3 scope of patent damages. First, under well-settled and applicable Federal Circuit authority, the only
 4 way Ricoh can recover royalties on sales of Matrox's graphics boards is by virtue of the entire market
 5 value rule. Under the entire market value rule, Ricoh has the burden to prove that the basis for
 6 customer demand for the products is the patented feature before it can recover damages on the sales of
 7 these products. Since it is clear that the basis for customer demand for graphics boards is *not*
 8 Customer Defendants' use of Synopsys' Design Compiler, it was not surprising that neither of Ricoh's
 9 damages experts even alleged or opined in their expert reports that customer demand for these products
 10 was driven by Customer Defendants' use of Synopsys' Design Compiler. Faced with defeat, Ricoh
 11 now offers two new eleventh-hour declarations from its damages expert and its technical expert and a
 12 citation to its damages expert's deposition testimony. However, neither of these late declarations nor
 13 its damages expert's deposition testimony alleges that customer demand for graphics boards or ASICs
 14 is driven by Matrox's use of Synopsys' Design Compiler. The same facts and arguments apply to
 15 ASIC sales. On this basis alone, the Court should grant summary judgment.

16 Second, knowing it is doomed on the entire market value rule, Ricoh argues that that it can
 17 recover damages on graphics board sales under 271(g). However, Ricoh's argument is not supported
 18 by any evidence in opposition to Customer Defendants' motion. Furthermore, it is undisputed that
 19 Matrox's graphics boards are not "made by" the process described in the '432 patent. As for ASIC
 20 sales, Ricoh's sole reliance on the fact that the Court previously denied the Customer Defendants'
 21 motion for summary judgment is misplaced because it completely ignores the entire – and undisputed
 22 – evidentiary record that now exists that did not exist in November at the time of the Court's order.
 23 The new undisputed evidence establishes that the accused processes do not even produce the full
 24 design for the ASIC. Therefore, Ricoh cannot prevail on its 271(g) argument with respect to graphics
 25 board or ASIC sales and therefore summary judgment should be granted.

26 Third, Ricoh has pointed to no evidence, other than an admittedly incorrect line item on a
 27 product declaration, that the VIA/1 product included synthesis that occurred during the damages
 28 period. Since it is undisputed that the synthesis that is included in this product occurred before 1997,

1 Ricoh cannot recover damages for the VIA/1.

2 Fourth, Ricoh has not shown any evidence demonstrating that any infringing activity for the
3 Matrox Calao; Condor; CondorPlus; Cyclone; Eclipse; Maven; Sunex; Toucan; SIB; and Oasis
4 products took place in the United States, such that the sales could be included in reasonable royalty
5 calculations. Ricoh has also not pointed to any material issues of fact regarding the foreign sales of
6 these products. Instead, Ricoh complains that Matrox provided it with too much financial data that one
7 of its damages experts blindly included without comparing it against the product declaration's listing
8 of products synthesized outside the United States, and the customer shipment information, to see if it
9 was applicable. Consequently, Ricoh cannot recover damages for these products so summary
10 judgment should be granted.

11 **II. RICOH CANNOT RECOVER DAMAGES ON GRAPHICS BOARD SALES BECAUSE**
12 **ITS DAMAGES THEORY VIOLATES THE ENTIRE MARKET VALUE RULE**

13 Ricoh seeks reasonable royalty damages on Matrox's sales of graphics boards even though the
14 only accused infringing process is Matrox's use of Synopsys' Design Compiler to perform logic
15 synthesis – one step of twenty steps to design an ASIC. Moreover, an ASIC is only one of many
16 components on Matrox's graphics boards. Because of this, under well-settled authority, in order to
17 recover damages on the sales of these products, Ricoh must prove that demand for these products is
18 driven by Customer Defendants' use of Synopsys' Design Compiler. *See Imonex Services, Inc. v.*
19 *W.H. Muzprufer Dietmar Trenner GMBH*, 408 F.3d 1374, 1379 (Fed. Cir. 2005), citing *State Indus.,*
20 *Inc. v. Mor-Flo Indus., Inc.*, 883 F.2d 1573, 1580 (Fed. Cir. 1989); *see also Volovik v. Bayer Corp.*,
21 2004 U.S. Dist. LEXIS 300, *28-32 (D. Minn. January 7, 2004) (summary judgment motion granted
22 prohibiting use of entire market value rule where there was no evidence that allegedly infringing
23 pumps were the basis of the customer demand for an immunoassay system); *Accuscan, Inc. v. Xerox*
24 *Corp.*, 1998 U.S. Dist. LEXIS 14242, *28-31 (S.D.N.Y. September 10, 1998) (new trial on damages
25 granted where there was no evidence in the record that the patented invention of calibrating electric
26 signals formed the basis for customer demand for copier, facsimile, and scanner products); *Mars, Inc.*
27 *v. Coin Acceptors, Inc.*, 1995 U.S. Dist. LEXIS 21697, *6-9 (D.N.J. October 30, 1995) (no evidence
28 that basis for customer demand for coin changer was patented coin tube feature).

1 Obviously, no customer chooses to buy Matrox's graphics boards based on whether they use
 2 Synopsys' Design Compiler to perform logic synthesis. Not surprisingly then, neither of Ricoh's
 3 damages experts even bothered to opine or analyze customer demand in their expert reports. *See De*
 4 *Mory Decl.*,¹ Exs. 54 at 23-24 and 55 at 2-3. Faced with no evidence, Ricoh, in its opposition, cites its
 5 damages expert Fred Lipscomb's deposition testimony, and offers a declaration from Mr. Lipscomb
 6 and another declaration from Ricoh's technical expert Donald Soderman. Remarkably, however,
 7 neither of Ricoh's new declarations nor the cited deposition testimony ever opines that customer
 8 demand for graphics boards, or even ASICs, is driven by Customer Defendants' use of Synopsys'
 9 Design Compiler.

10 Indeed, although Ricoh claims that "Mr. Lipscomb's understanding of the Entire Market Value
 11 Rule and its application were fully explored during his deposition," Mr. Lipscomb never testified in his
 12 deposition that customer demand for graphics boards or ASICs is driven by Customer Defendants' use
 13 of Synopsys' Design Compiler. (See Brothers Decl. Ex. 10) Mr. Lipscomb testified that "according to
 14 Dr. Soderman, there is substantial cost reduction, productivity improvement, reduction in errors ..."
 15 and that an ASIC is a "critical part" of other products. (Brothers Decl. Ex. 10) Whether or not a
 16 specific step in designing an ASIC is "critical" or results in "substantial cost reduction" is irrelevant to
 17 this damages issue since all steps to design an ASIC are essential and numerous other unpatented
 18 processes are also "critical" and result in "substantial cost reduction" in designing an ASIC. It is also
 19 irrelevant whether Matrox's graphics boards would be "nonfunctional" absent an ASIC. Soderman
 20 Dec. ¶ 58. In *Imonex*, the patented coin selectors were "critical" to the operation of the laundry
 21 machines and indeed, the laundry machines would be "nonfunctional" without the patented coin
 22 selectors. Nonetheless, the Federal Circuit properly concluded that "[w]ithout any evident record that
 23 the patented features were the basis for customer demand for the laundry machines as a whole, the trial
 24 court properly foreclosed further evidence on this unsupported theory." *Id.* at 1380. Since, Ricoh has
 25 no evidence that Customer Defendants' use of Synopsys' Design Compiler is the basis for customer
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27 ¹ All citations to the De Mory Decl. refer to the declaration in support of all Synopsys and Customer Defendant summary
 28 judgment motions filed on August 18, 2006.

1 demand for graphics boards as a whole, this Court should grant summary judgment and prevent Ricoh
2 from pursuing its unsupported damages theory at trial.

3 Next, Ricoh tries to excuse its lack of evidence by claiming that there is no “usable data on
4 sales, cost or any other valuation data for the ASIC portion of the Matrox boards because it is not
5 possible to apportion value of individual ASICs.” Opposition at 8. This excuse rings hollow since the
6 Customer Defendants’ damages expert was able to determine the average cost of an ASIC for a Matrox
7 board. Wagner Decl., Exh.1, schedule 8.1.5.² Moreover, such an excuse has been squarely rejected.
8 *See Imonex*, at 1379 (court ruled that Imonex’s damages claim was properly excluded even though
9 “Imonex noted that the OEMs could supply profitability data only on the entire machines.”).

10 Knowing its damages theory is unsupported, Ricoh desperately claims that graphics board sales
11 can be recovered under 271(g). Ricoh’s argument, however, is not supported by a scintilla of evidence
12 and no reasonable jury could find for Ricoh on this issue, and frankly, it makes no sense. Under no
13 circumstances are Matrox graphics boards “made by” the process described in the ‘432 patent. Indeed,
14 Ricoh advances no real argument and comes forward with no evidence to support this contention.

15 **III. RICOH CANNOT RECOVER DAMAGES ON ASIC SALES BECAUSE ITS** 16 **DAMAGES THEORY VIOLATES THE ENTIRE MARKET VALUE RULE**

17 As discussed above, Ricoh’s failure of proof with regard to the entire market value rule applies
18 equally to ASIC sales. Thus, Ricoh attempts to save its claims to ASIC damages via reliance on 35
19 U.S.C. § 271(g). With regard to 271(g), however, Ricoh relies solely on the fact that the Court
20 previously denied the Customer Defendants’ motion for summary judgment. This reliance is
21 misplaced. First, 271(g) does not apply to products designed in the United States. *See* 35 U.S.C. §
22 271(g). Second, Ricoh completely ignores the entire evidentiary record that now exists – that did not
23 exist in November at the time of the Court’s last order on that issue. The evidence developed over the
24 last year establishes beyond a doubt that the accused processes do not even produce the full design for
25 the ASIC. In the case of over 200 AMI chips, the only thing that the accused process is used to do is
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28 ² This declaration was in support of the August 18, 2006 Synopsys and Customer Defendant summary judgment motions.

1 develop a Built-In-Self Test (BIST), which adds no end-user functionality to the chip.³ Casavant
 2 Decl., ¶ 9. And, most of the ASICs at issue are mixed signal ASICs, whereby only the digital portions
 3 of the ASIC are designed using the accused processes, or have portions which are not synthesized.
 4 Casavant Decl. ¶ 8, 10. Thus, in addition to only producing data, the accused processes do not even
 5 result in the description of the entire ASIC that is ultimately manufactured. Because of these
 6 additional undisputed facts, which Ricoh does not even bother to address, there is no doubt that the
 7 ASICs are not “made by” the accused process. Accordingly, Ricoh cannot prevail on its 271(g)
 8 argument with regard to ASICs for which a portion of the one step in the design process was created
 9 inside or outside of the United States, and thus Ricoh cannot claim ASIC sales as the royalty base.

10 **IV. IT IS UNDISPUTED THAT THE VIA/1 INCLUDED SYNTHESIS OUTSIDE THE**
 11 **DAMAGES PERIOD**

12 In its opposition, Ricoh has provided no evidence that the VIA/1 product included synthesis
 13 from during the damages period.⁴ Ricoh did not provide any such evidence because no such evidence
 14 exists. The VIA/1 product did not undergo synthesis itself. See De Mory Decl., Ex. 65 at 201 and
 15 215. Instead, it used the synthesis from the VIA/0 product, which occurred prior to the start of the
 16 damages period. *Id.* at 202-215. Since 35 U.S.C. § 286 makes it clear that “[e]xcept as otherwise
 17 provided by law, no recovery shall be had for any infringement committed more than six years prior to
 18 the filing of the complaint or counterclaim for infringement in the action,” and Ricoh has not provided
 19 evidence that synthesis included in the VIA/1 occurred within the damages period, the \$ in
 20 sales of the VIA/1 product should be removed from the royalty base for Matrox Electronic Systems.
 21 De Mory Decl., Ex. 55 at 8.

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 26 ³ Ricoh’s technical expert, Dr. Soderman does not dispute this, but instead confirms that the end user can only use the BIST
 to test memory. Soderman Decl. at ¶ 57.

27 ⁴ Eric Boisvert, the Vision Processor Product Line Supervisor at Matrox Electronic Systems, testified on June 6, 2006 that
 28 the VIA/1 had been included on the product declaration in error. See De Mory Decl., Ex. 65 at 201-202. This deposition
 occurred more than two weeks prior to Ricoh’s expert reports, but was not considered by either of Ricoh’s damages experts.

V. IT IS UNDISPUTED THAT MATROX'S ASICS WERE DESIGNED OUTSIDE THE UNITED STATES, AND THAT SOME SALES OF THESE ASICS WERE MADE TO FOREIGN CUSTOMERS

As a matter of law, Ricoh cannot recover damages for products both designed and sold outside of the United States. In these circumstances, Ricoh cannot recover damages under 35 U.S.C. § 271(a). *See NTP*, 418 F.3d at 1313 ("The territorial reach of section 271 is limited. Section 271(a) is only actionable again patent infringement that occurs within the United States."); *see also International Rectifier Corp. v. Samsung Elecs. Co.*, 361 F.3d 1355, 1360 (Fed. Cir. 2004).⁵ The only section of the Patent Statute that applies to methods performed outside the United States is 35 U.S.C. § 271(g). However, § 271(g) only applies to products that are imported into the United States. Matrox has provided evidence that the following Matrox ASICs contained in its graphics boards were completely designed outside the United States: Calao; Condor; CondorPlus; Cyclone; Eclipse; Maven; Sunex; Toucan; SIB; and Oasis. Ricoh has not provided any contrary evidence, because there is none. Ricoh has also not pointed to any evidence disputing that the Matrox graphics boards containing the ASICs listed above were sold to foreign customers, again because there is none. As a matter of law, neither § 271(a) nor § 271(g) damages apply to foreign sales of products for which no infringement occurred in the United States. Therefore, foreign sales of \$ _____ for the graphics boards including these ASICs should be removed from the Ricoh's proposed royalty base.⁶

VI. CONCLUSION

For all the foregoing reasons, the Customer Defendants respectfully request that this Court grant their motion for summary judgment and preclude Ricoh from recovering damages for: (1) royalties based on the sales of the Matrox's graphics boards, in violation of the Federal Circuit "entire

⁵ In addition, for 271(a) to be applicable for a process patent, every step of the process must occur in the United States. *See NTP*, 418 F.3d at 1318 ("[w]e therefore hold that a process cannot be used "within" the United States as required by *section 271(a)* unless each of the steps is performed within this country.") Therefore, under 271(a) Ricoh is unable to recover damages for the AMI and Matrox products designed entirely outside the United States, as well as for any ASICs where any step in the claimed process occurred outside the U.S.

⁶ Ricoh complains that its damages experts included all sales that were included in the financials from Matrox because Matrox was required by the Court to provide all applicable sales. However, Matrox never represented that it was providing **only** applicable sales, contrary to Ricoh's assertions. Ricoh's two damages experts simply did not bother to go through the analysis to ensure that the proper sales were included for Matrox, even though the product declarations clearly stated that many products were designed outside the United States, and the customer addresses were provided.

1 market value rule,” (2) royalties based on ASIC sales; (3) defendant Matrox’s sales of graphics boards
2 that were designed and sold outside the United States; and (4) defendant Matrox’s sales of graphics
3 boards designed before Ricoh is legally allowed to recover damages in this matter; and (5) Customer
4 Defendants’ ASIC sales under 271(g).

5 Dated: September 8, 2006

Respectfully submitted,

6 HOWREY LLP

7
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17 MATROX TECH, INC.
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